Amendments to the Specification

Please replace the paragraph on page 11, beginning on line 10, with the following amended paragraph:

--"Peptide" or "Protein": According to the present invention, a "peptide" or "protein" comprises a string of at least three amino acids linked together by peptide bonds. Inventive peptides preferably contain only natural amino acids, although non-natural amino acids (i.e., compounds that do not occur in nature but that can be incorporated into a polypeptide chain~~; see, for example, http://www.cco.caltech.edu/~dadgrp/Unnatstruct.gif, which displays structures of non-natural amino acids that have been successfully incorporated into functional ion channels~~) and/or amino acid analogs as are known in the art may alternatively be employed. Also, one or more of the amino acids in an inventive peptide may be modified, for example, by the addition of a chemical entity such as a carbohydrate group, a phosphate group, a farnesyl group, an isofarnesyl group, a fatty acid group, a linker for conjugation, functionalization, or other modification, *etc.*--

Please replace the paragraph on page 24, beginning on line 5, with the following amended paragraph:

--**Mouse genotyping.** Genotyping was achieved by DNA PCR. Briefly, genomic DNA was isolated from tail biopsy and analyzed by amplification using three primers: p21 +116F (AAG CCT TGA TTC TGA TGT GGG C), (SEQ. ID NO. 1), p21 -135 (TGA CGA AGT CAA AGT TCC ACC G), (SEQ ID NO. 2), and Neo19+ (GCT ATC AGG ACA TAG CGT TGG C), (SEQ ID NO. 3). p21 +116F was involved in the amplification of both mutant and wild-type alleles. The conditions for thermocycling were as follows:--

Please replace the paragraph on page 26, beginning on line 25, with the following amended paragraph:

--**Semi-quantitative DNA PCR for Y-chromosome.** The contribution of the original donor cells was monitored by a PCR-based semi-quantitative analysis for Y-chromosome specific sequence (Sry) (Muller *et al. Development* 118:1343-51, 1993; incorporated herein by reference) using an aliquot of each marrow sample described below. Briefly, DNA from bone marrow cells

was isolated using a Puregene kit (Gentra System, Inc., Research Triangle Park, NC) according to the manufacturer's instruction. 200 ng of DNA was applied to the PCR reaction. The sequences for the PCR primers are as follows (5'-3'): Sry primers: (TCA TGA GAC TGC CAA CCA CAG), (SEQ ID NO. 4), and (CAT GAC CAC CAC CAC CAC CAC CAA), (SEQ ID NO. 5); myogenin primers: (TTA CGT CCA TCG TGG ACA GC), (SEQ ID NO. 6), and (TGG GCT GGG TGT TAG TCT TA), (SEQ ID NO. 7). The PCR cycles were: 10 min 94°C, 35 cycles of 94°C for 10 sec, 65°C for 30 sec followed by 5 min 72°C. A linear relationship between the ratios of male genomic DNA to the total amount of DNA and the signal intensities of the PCR product was plotted simultaneously in order to quantify the contribution of donor cells.--

Please replace the paragraph on page 32, beginning on line 18, with the following amended paragraph:

--**Mouse genotyping.** Genotyping was achieved by DNA PCR. Briefly, genomic DNA was isolated from tail biopsy and analyzed by amplification using three primers (the sequences were provided by Dr. Andrew Koff): SW40 (5'-TCA AAC GTG AGA GTG TCT AAC GG3'), (SEQ ID NO. 8), SW41 (5' ACG GGC TTA TGA TTC TGA AAG TCG-3'), (SEQ ID NO. 9), and SW39 (5'-ATA TTG CTG AAG AGC TTG GCG G-3'), (SEQ ID NO. 10). SW40 is a forward primer that binds the region nt4-nt26 of pLambda-KIP-34-1. Used in conjunction with SW41, a reverse primer binding to nt209-nt186 of pLambda-KIP-34-1, this will produce a PCR product of 206 bps from the wild-type locus. SW40 used in conjunction with SW39, a forward primer binding to nt 1420-nt1441 of PMC1POLA, will produce a PCR product of 298 bps from the mutant locus. All three primers were used together in the same reaction to detect wild type and mutant loci. The conditions for thermocycling were as follows: Step 1: 94 °C, 4 min; step 2: 90 °C, 30 seconds, 55 °C, 30 seconds, 72 °C, 1 min, for 35 cycles; step 3: 72 °C, 10 min. Diagnostic mutant and wild-type amplified bands were detected on a 2.0% agarose gel post visualization with ethidium bromide.--